

CLAIMS

1. A method of printing a digital photograph including the following steps:
 - 5 (a) transmitting instructions for printing the photograph to a printer;
 - (b) printing the photograph onto a surface using the printer;
 - (c) also printing on the surface coded data indicative of an identity of the photograph and at least one reference point on the surface, wherein the coded data is printed on the surface in a form which can be read by an optical sensing device.
- 10 2. A method according to claim 1 wherein the identity of the photograph is determined by an identification code issued by a server which issues photograph identification codes.
- 15 3. A method according to claim 1 wherein a copy of the photograph may be requested by directing an optical sensing device towards a zone on the surface, which causes the optical sensing device to sense coded data on the surface and transmit a message to a printer, which in turn causes the printer to print a copy of the photograph.
- 20 4. A method according to claim 1 wherein a digital copy of the photograph is archived separately from the printed photograph and the original digital photograph.
5. A method of taking, storing and printing a digital photograph including the following steps:
 - 25 (a) taking a digital photograph using a digital camera;
 - (b) assigning an identification code to the digital photograph;
 - (c) transmitting the digital photograph to a digital photograph repository and

storing the digital photograph by reference to the identification code;

(d) printing the digital photograph onto a surface using a printer;

(e) also printing on the surface coded data indicative of the identification code assigned to the photograph and at least one reference point on the surface, wherein the
5 coded data is printed on the surface in a form which can be read by an optical sensing device.

6. A method according to claim 5 wherein the digital camera and printer form an integrated unit, the step of transmitting the digital photograph is done by means of a
10 transmitter located in or proximate the integrated unit, the step of assigning an identification code is conducted on a computer remote from the integrated unit, and the identification code is transmitted from the remote computer to the integrated unit before the digital photograph is printed.

15 7. A method according to claim 5 wherein the digital camera and printer form an integrated unit, identification codes are assigned to the integrated unit by a computer remote from the integrated unit, stored in the integrated unit and used for successive photographs, and the step of transmitting the digital photograph to a digital photograph repository is done after a number of photographs have been taken, assigned an
20 identification code, and stored by the camera, the transmitting step occurring either before or after the step of printing the photograph.

8. A method according to claim 2 wherein the photograph identification code is also sent to a digital camera which took the photograph for future reference.

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9. A method according to claim 1 wherein data indicative of an action is forwarded from an optical sensing device to a printer when the optical sensing device is used to designate a particular zone of the surface.

10. A method according to claim 1 wherein the surface has printed on it one or more options which a user may select, each associated with a designated zone on the surface, and the user selects an option by moving an optical sensing device on the surface within the associated zone, the optical sensing device transmitting data indicative of the user's selection to a printer.

11. A method according to claim 1 wherein a user annotates the photograph with text by writing with an optical sensing device on the surface, data indicative of the movements of the optical sensing device being transmitted to a printer and converted to computer text.

12. A method according to claim 1 wherein a user signs the photograph by writing the user's signature on the surface with an optical sensing device, data indicative of the movements of the optical sensing device being transmitted to a printer, the signature thereafter being verified by comparison with a known signature of the user.

13. A method according to claim 1 wherein a user draws on the photograph by drawing on the surface with an optical sensing device, data indicative of the movements of the optical sensing device being transmitted to a printer.

14. A method according to claim 1 wherein a user requests one or more other documents or photographs to be printed by directing an optical sensing device to a zone on the surface.

15. A method according to claim 1 or claim 5 wherein the coded data is substantially invisible to the human eye.

16. A method according to claim 15 wherein the coded data is printed using an infrared ink and/or an infrared-absorptive ink.

- 17 A method according to claim 15 wherein some or all of the coded data is printed on part of the photograph.
- 5 18. A method according to claim 1 wherein the photograph is part of a multi-page document and the printer automatically binds the pages together.
19. A method of printing a digital photograph including the following steps:
- (a) transmitting instructions for printing the photograph to a printer;
- 10 (b) printing the photograph onto a surface using the printer;
- (c) also printing on the surface coded data indicative of at least one function associated with the photograph, wherein the coded data is printed on the surface in a form which can be read by an optical sensing device.
- 15 20. A method according to claim 19 wherein a copy of the photograph may be requested by directing an optical sensing device towards a zone on the surface, which causes the optical sensing device to sense coded data on the surface and transmit a message to a printer, which in turn causes the printer to print a copy of the photograph.
- 20 21. A method according to claim 19 wherein a digital copy of the photograph is archived in a digital photograph repository.
22. A method according to claim 21 wherein the digital copy is archived on a server remote from the printer and remote from a camera which took the original digital
- 25 photograph.
23. A method of taking, storing and printing a digital photograph including the following steps:

- (a) taking a digital photograph using a digital camera;
 - (b) transmitting the digital photograph to a digital photograph repository;
 - (c) printing the digital photograph onto a surface using a printer;
 - (d) also printing on the surface coded data indicative of at least one function
- 5 associated with the photograph, wherein the coded data is printed on the surface in a form which can be read by an optical sensing device.

24. A method according to claim 19 wherein data indicative of an action is forwarded from an optical sensing device to a printer when the optical sensing device is
10 used to designate a particular zone of the photograph.

25. A method according to claim 19 wherein the surface has printed on it one or more options which a user may select, each associated with a designated zone on the surface, and the user selects an option by moving an optical sensing device on the
15 surface within the associated zone, the optical sensing device transmitting data indicative of the user's selection to a printer.

26. A method according to claim 19 wherein a user annotates the photograph with text by writing with an optical sensing device on the surface, data indicative of the
20 movements of the optical sensing device being transmitted to a printer and converted to computer text.

27. A method according to claim 19 wherein a user signs the photograph by writing the user's signature on the surface with an optical sensing device, data indicative of the
25 movements of the optical sensing device being transmitted to a printer, the signature thereafter being verified by comparison with a known signature of the user.

28. A method according to claim 19 wherein a user draws on the photograph by

drawing on the surface with an optical sensing device, data indicative of the movements of the optical sensing device being transmitted to a printer.

29. A method according to claim 19 wherein a user requests one or more other
5 documents or photographs to be printed by directing an optical sensing device to a zone on the surface.

30. A method of taking, storing and printing data indicative of a digital photograph including the following steps:

- 10 (a) taking a digital photograph using a digital camera;
- (b) assigning an identification code to the digital photograph;
- (c) transmitting the digital photograph to a digital photograph repository and storing the digital photograph by reference to the identification code;
- (d) printing onto a surface using a printer coded data indicative of the identification
15 code assigned to the photograph and at least one reference point on the surface, wherein the coded data is printed on the surface in a form which can be read by an optical sensing device, allowing automatic retrieval of the photograph.

31. A system for printing a digital photograph including the following components:

- 20 (a) apparatus for transmitting instructions for printing the photograph to a printer;
- (b) a printer for printing the photograph and coded data indicative of an identity of the photograph and at least one reference point onto a surface;
- (c) a surface onto which the photograph is to be printed; and
- (d) an optical sensing device for sensing the coded data.

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32. A system according to claim 31 further including an identification server which issues an identification code for the photograph.

33. A system according to claim 31 wherein the optical sensing device includes means for transmitting one or more of the following to a receiver associated with the printer:

- 5 (a) data sensed by the optical sensing device;
- (b) data indicative of the location and/or orientation of the optical sensing device;
- (c) data indicative of the movement of the optical sensing device.

34. A system according to claim 31 further including a page server for archiving a
10 digital copy of the photograph separately from the printed photograph and the original digital photograph.

35. A system according to claim 31 further including a digital camera, a digital
15 photograph repository, and means for transmitting digital photographs from the digital camera to the digital photograph repository and storing the digital photograph by reference to the identification code;

36. A system according to claim 35 wherein the digital camera and printer form an
20 integrated unit, a transmitter is located in or proximate the integrated unit for transmitting the digital photograph, a computer remote from the integrated unit performs the step of assigning an identification code, and the identification code is transmitted from the remote computer to the integrated unit before the digital photograph is printed.

37. A method according to claim 35 wherein the digital camera and printer form an
25 integrated unit, and wherein a computer remote from the integrated unit assigns identification codes to the integrated unit, the identification codes being stored in the integrated unit and used for successive photographs, wherein further the step of transmitting the digital photograph to a digital photograph repository is done after a number of photographs have been taken, assigned an identification code, and stored by

the camera, the transmitting step occurring either before or after the step of printing the photograph.

38. A system according to claim 31 wherein the surface has printed on it one or more options which a user may select, each associated with a designated zone on the surface, and the user selects an option by moving an optical sensing device on the surface within the associated zone, the optical sensing device transmitting data indicative of the user's selection to a printer.

39. A system according to claim 31 further including means for converting data indicative of movements of the optical sensing device into computer text.

40. A system according to claim 31 further including means for comparing data received from the optical sensing device indicative of a signature with a known signature of the user.

41. A system according to claim 31 further including means for interpreting, storing and retrieving data indicative of movements of the optical sensing device representing lines drawn by the user on the photograph.

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42. A system according to claim 31 wherein the coded data is substantially invisible to the human eye.

43. A system according to claim 42 wherein the coded data is printed using an infrared ink and/or an infrared-absorptive ink.

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44. A system according to claim 42 wherein some or all of the coded data is printed on part of the photograph.